

Green Horse Reforestation Costs

Within the Green Horse treatment units, there are approximately 880 acres of vegetation response unit (VRU) 10, which represents the grand fir mosaic (total project is approx 1,500 ac of regeneration harvest). The grand fir mosaic can be problematic to successfully reforest within 5-year NFMA regeneration timeframe. Studies have shown that there are 4 contributing factors to regeneration failure within the grand fir mosaic – competition from brush and other non-woody vegetation, allelopathy (growth being inhibited by biochemicals released by other plants), pocket gophers and soil pH (Ferguson & Byrne 2000). In short – reforestation within the grand fir mosaic can be a slow process. Records indicate that within the Green Horse project area, past projects have taken 5-10 years to successfully reforest, and most required 2 plantings. In addition to the grand fir mosaic, most of the area has a significant brush component that will be competing with the seedlings for growing space.

Some of the options for increasing the chance of reforestation within the five-year time NFMA timeframe are:

Doing at least 2 gopher baiting treatments @ \$80/ac to control gopher populations and limit damage to conifer seedlings.

Slash and burn treatments for site prep – slashing would add approx. \$500/ac to total costs, however it would allow for better site prep in units that have a lot of brush.

Including 24" scalps for planting – increases cost by \$30-35/ac.

Weed and release treatments following planting (2nd and 5th year after planting) to keep competing vegetation in check - \$160/ac per treatment.

I have included a table (Table 1) to show some of the estimated costs associated with reforestation.

Estimates for planting range from planting 80-90% of the planned NEPA units – given that we generally lose 20% (or more) of our NEPA units during layout. I have included an “average” line to compare more normal reforestation costs across the same acres.

Table 1. Costs associated with reforestation following timber harvest.

Acres	Cost per/ac								Totals
	Slashing	ADC	Planting	Stocking Survey	ADC	Stocking Survey	Weed/Release	Weed/Release	
1200 (average)		\$80	\$400	\$24		\$24			\$633,600
1,200	\$490	\$80	\$450	\$24	\$80	\$24	\$160	\$160	\$1,736,000
1,350	\$500	\$80	\$440	\$24	\$80	\$24	\$160	\$160	\$1,944,200

If we have to replant, that would be an additional \$450/ac across approx. 880 acres. The second gopher treatment would be across the grand fir mosaic acres (approx. 880).

Reference:

Ferguson, Dennis E.; Byrne, John C. 2000. Environmental characteristics of the grand fir mosaic and adjacent habitat types. Res. Pap. RMRS-RP-24Ft. Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 20 p.